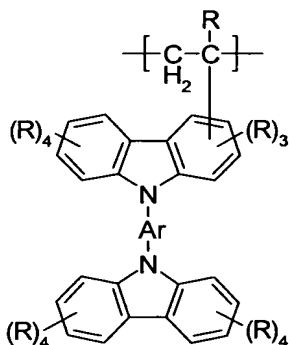


WHAT IS CLAIMED IS

1. A charge transporting material comprising a compound, a molecular structure of which has at least one repeating unit represented by the following formula (1):

Formula (1)



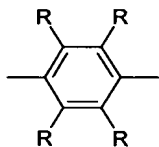
- wherein, Ar is a non-substituted or substituted arylene group or a non-substituted or substituted heterocyclic group, the arylene group having 6 or more to 60 or less carbon atoms and forming a conjugated bond system extending over a region between two nitrogen atoms, the heterocyclic group having 4 or more to 60 or less carbon atoms and also forming a conjugated bond system extending over a region between two nitrogen atoms, and wherein, each R may be different or same, and selected from the group consisting of hydrogen atom, alkyl group having 1 to 20 carbon atoms, alkoxy group having 1 to 20 carbon atoms, alkylthio group having 1 to 20 carbon atoms, alkylsilyl group having 1 to 60 carbon atoms, alkylamino group having 1 to 40 carbon atoms,

aryl group having 6 to 60 carbon atoms, aryloxy group having 6 to 60 carbon atoms, arylalkyl group having 7 to 60 carbon atoms, arylalkoxy group having 7 to 60 carbon atoms, arylalkenyl group having 8 to 60 carbon atoms, arylamino group having 6 to 60 carbon atoms, heterocyclic group having 4 to 60 carbon atoms, cyano group, nitro group, and halogen atoms.

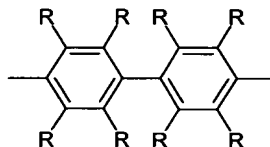
2. The charge transporting material according to claim 1, wherein the total number of the repeating units represented by the formula (1) contained in the molecular of the compound is 5 to 100,000.

3. The charge transporting material according to claim 1, wherein the Ar in the formula (1) is selected from the group consisting of the structures represented by the following formulas (a) to (j):

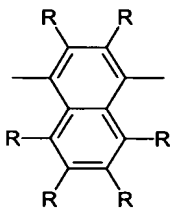
Formula (a)



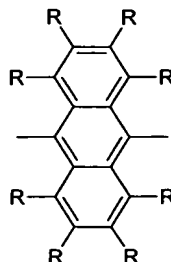
Formula (b)



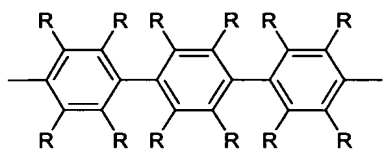
20 Formula (c)



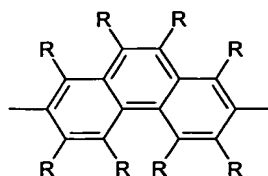
Formula (d)



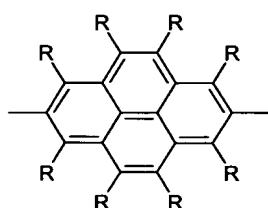
Formula (e)



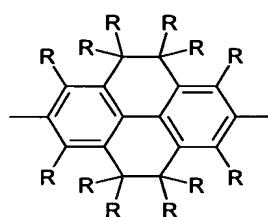
Formula (f)



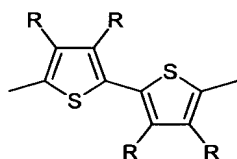
Formula (g)



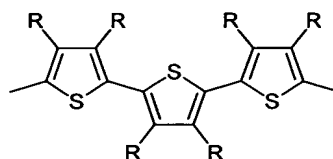
Formula (h)



5 Formula (i)



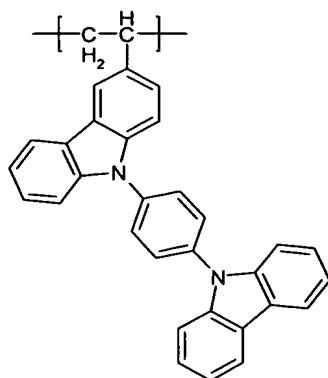
Formula (j)



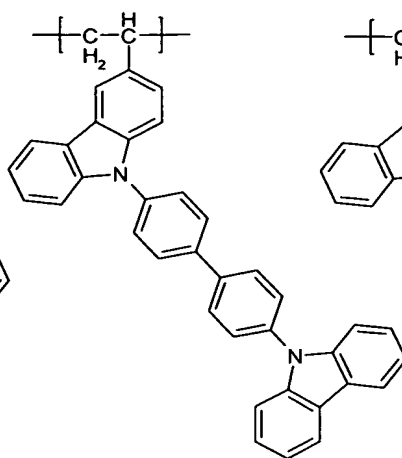
wherein, each R is same as described above.

- 10 4. The charge transporting material according to claim 1, wherein the repeating unit represented by the formula (1) is at least one selected from the group consisting of the structures represented by the following formulas (2) to (9):

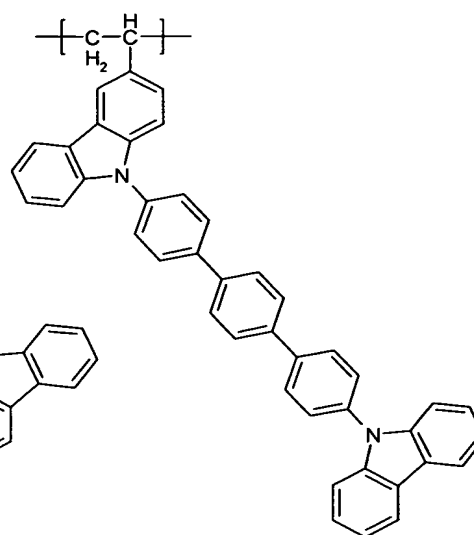
Formula (2)



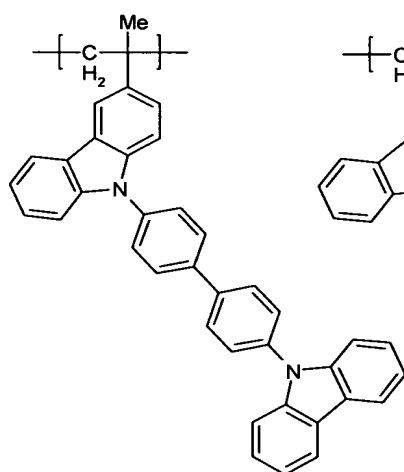
Formula (3)



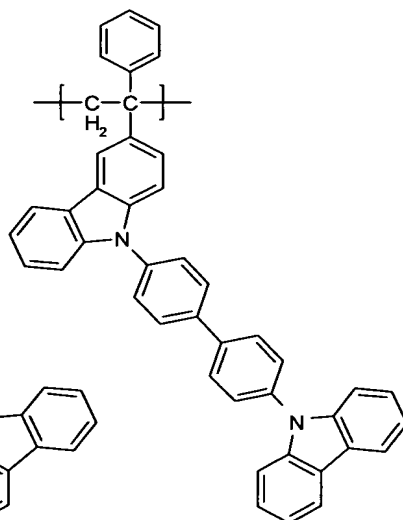
Formula (4)



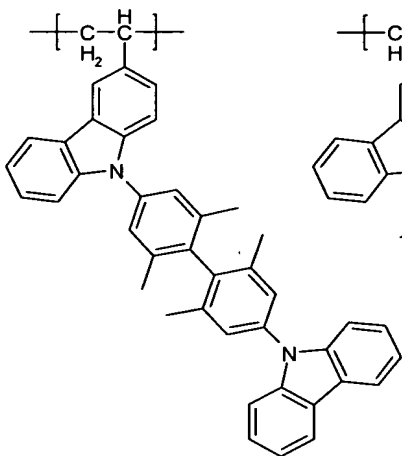
5 Formula (5)



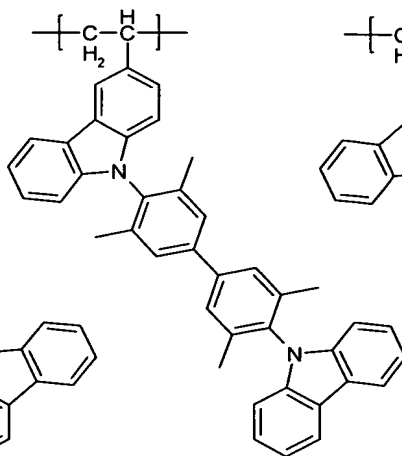
Formula (6)



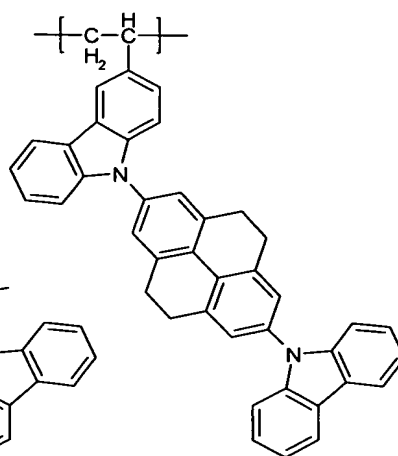
Formula (7)



Formula (8)

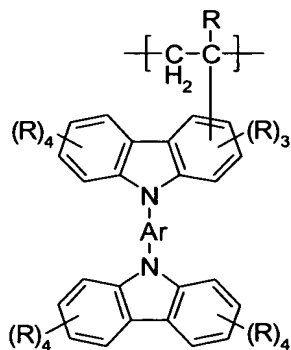


Formula (9)



5. An organic electroluminescent element comprising a pair of electrodes and an organic compound layer having a mono-layered or multi-layered structure and disposed between the electrodes, wherein at least one layer in the organic compound layer contains at least one compound, a molecular structure of which has at least one repeating unit represented by the following formula (1):

Formula (1)



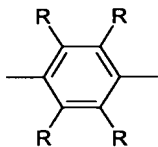
wherein, Ar is a non-substituted or substituted arylene group or a non-substituted or substituted heterocyclic group, the arylene group having 6 or more to 60 or less carbon atoms and forming a conjugated bond system extending over a region between
5 two nitrogen atoms, the heterocyclic group having 4 or more to 60 or more carbon atoms and also forming a conjugated bond system extending over a region between two nitrogen atoms, and wherein, each R may be different or same, and selected from the group consisting of hydrogen atom, alkyl group having 1 to 20
10 carbon atoms, alkoxyl group having 1 to 20 carbon atoms, alkylthio group having 1 to 20 carbon atoms, alkylsilyl group having 1 to 60 carbon atoms, alkylamino group having 1 to 40 carbon atoms, aryl group having 6 to 60 carbon atoms, aryloxyl group having 6 to 60 carbon atoms, arylalkyl group having 7 to 60 carbon atoms,
15 arylalkoxyl group having 7 to 60 carbon atoms, arylalkenyl group having 8 to 60 carbon atoms, arylamino group having 6 to 60 carbon atoms, heterocyclic group having 4 to 60 carbon atoms, cyano group, nitro group, and halogen atoms.

20 6. The organic electroluminescent element according to claim 5, wherein the total number of the repeating units represented by the formula (1) contained in the molecular of the compound is 5 to 100,000.

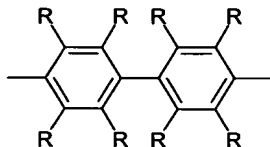
25 7. The organic electroluminescent element according to claim 5, wherein the Ar in the formula (1) is selected from the group consisting of the structures represented by the following

formulas (a) to (j):

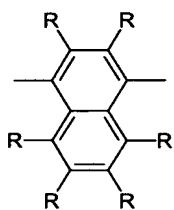
Formula (a)



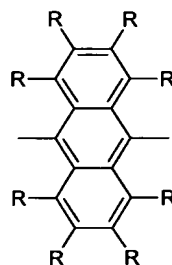
Formula (b)



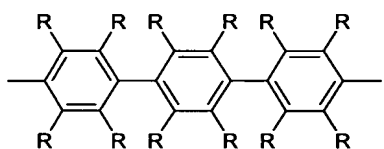
5 Formula (c)



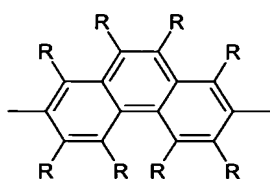
Formula (d)



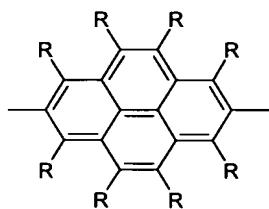
Formula (e)



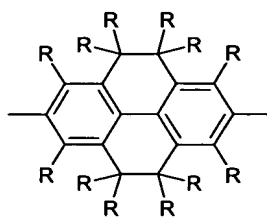
Formula (f)



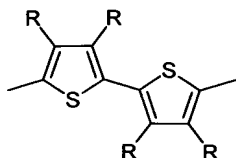
Formula (g)



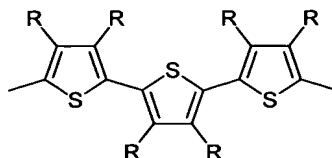
Formula (h)



Formula (i)



Formula (j)



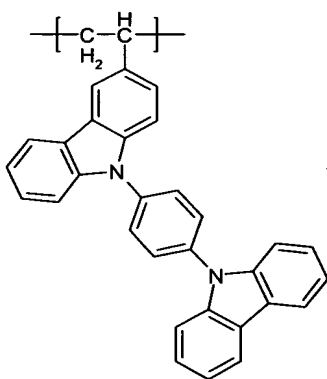
wherein, each R is same as described above.

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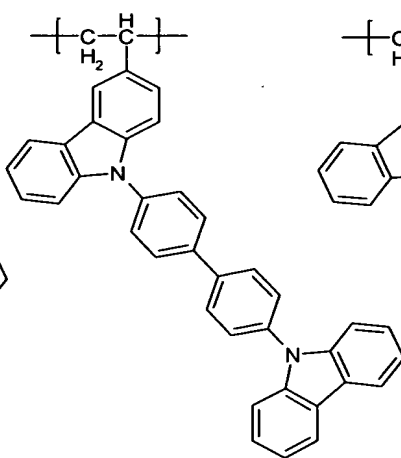
8. The organic electroluminescent element according to claim 5, wherein the repeating unit represented by the formula (1) is at least one selected from the group consisting of the structures represented by the following formulas (2) to (9):

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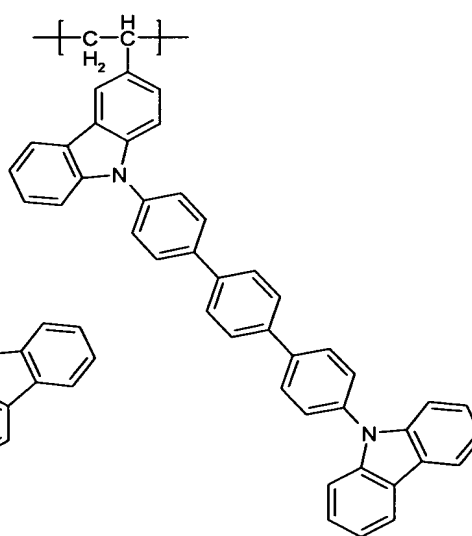
Formula (2)



Formula (3)



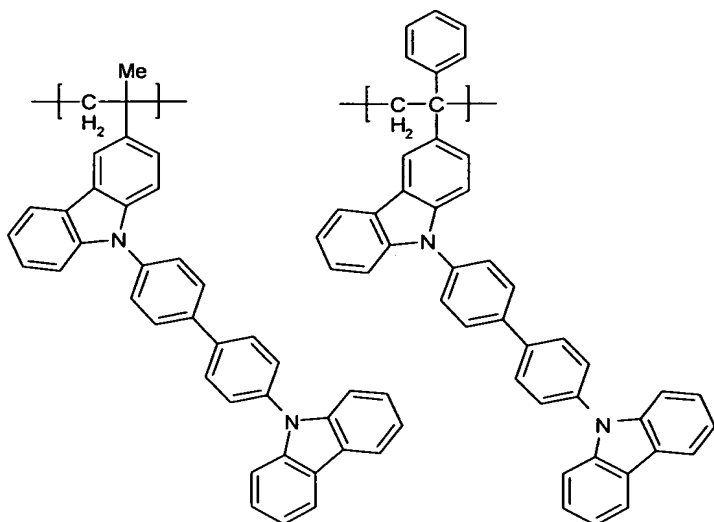
Formula (4)



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Formula (5)

Formula (6)

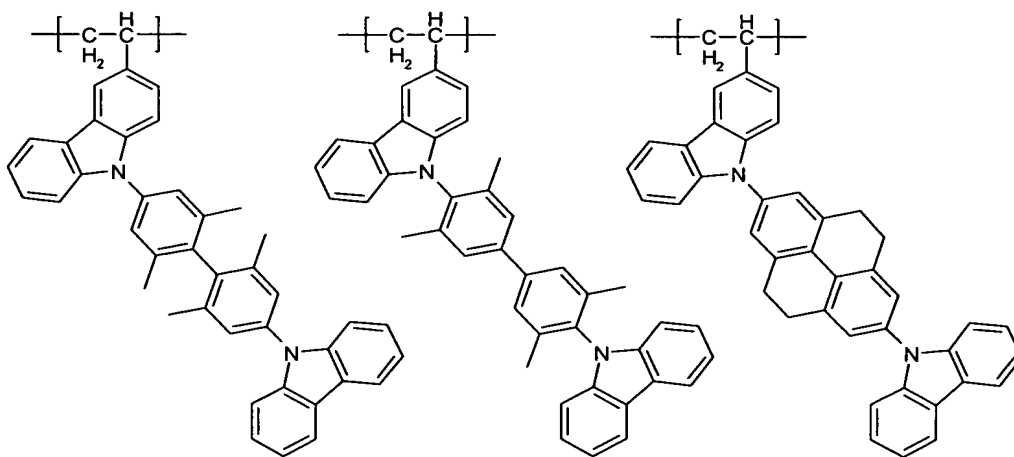


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Formula (7)

Formula (8)

Formula (9)



- 10 9. The organic electroluminescent element according to claim 5, wherein the organic compound layer is a light emitting layer comprising at least one light emitting material dispersed in the compound having at least one repeating unit represented by

the formula (1).

10. The organic electroluminescent element according to claim
6, wherein the light emitting layer comprises a phosphorescent
5 iridium compound as the light emitting material at 0.5 to 20 %by
weight.

11. The organic electroluminescent element according to claim
6, wherein a layer comprising an electron transporting compound
10 is disposed between the light emitting layer and the negative
electrode in a manner that the layer is adjacent to the light
emitting layer and the negative electrode.

12. The organic electroluminescent element according to claim
15 6, wherein a layer comprising a hole transporting compound is
disposed between the light emitting layer and the positive
electrode in a manner that the layer is adjacent to the light
emitting layer and the positive electrode.

20 13. The organic electroluminescent element according to claim
6, wherein a layer comprising an electron transporting compound
is disposed between the light emitting layer and the negative
electrode in a manner that the layer is adjacent to the light
emitting layer and the negative electrode, and wherein a layer
25 comprising a hole transporting compound is disposed between the
light emitting layer and the positive electrode in a manner that
the layer is adjacent to the light emitting layer and the positive

electrode.

14. A light emitting panel provided with an organic electroluminescent element according to claim 5.

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